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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,678	01/16/2004	B. Raghav Reddy	HES 2003-IP-011937U1	8611

28857 7590 05/11/2009

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ART UNIT	PAPER NUMBER
1793	

MAIL DATE	DELIVERY MODE
05/11/2009	PAPER

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/759,678
Filing Date: January 16, 2004
Appellant(s): REDDY ET AL.

Carey C. Jordan
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 2/17/09 appealing from the Office action mailed 7/10/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The grounds of rejection was originally indicated as over 102(a) and 102(b) but was amended to include only 102(b). There is no longer any rejection of claims over 102(a). Further, **Booth** was removed from a rejection under 35 USC 102(b) because he does not explicitly teach a ***set retarder*** required in all independent claims.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,393,939	Smith et al.	7-1983
3,508,407	Booth	4-1970
5,588,488	Vijn et al.	12-1996
6,087,418	Yamashita et al.	7-2000
6,089,318	Laramay et al.	7-2000
4,131,480	McCurrich et al.	12-1978

Scheetz et al. "Effect of mix rheology admixtures and salts on physical and mechanical properties of hardened cement pastes" Material Research Lab, Penn State Univ., Int. Congr. Chem. Cem. (Proc) 7th (1980) Volume 3, VI/170-VI/175; Publisher: SEPTIMA, Paris France.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

35 USC 102:

Claims 1-8,12, 14-16, 25-28, 30-36, 123-129,134, 136-156, 158-165, 170, and 172,173, and 180-190 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al. '939.

Smith et al. (hereafter Smith) teach a method of cementing comprising mixing hydraulic cement such as Portland cement which is a known hydraulic cement (see col.5, line 44) and a cationic polymer *particle size adjusting agent* that is compatible with retarders, accelerators, fluid loss additives, and other additives (see col.4, lines17-19 and claim 1, col.22, for example). It is the examiner's position the fact that Smith

teaches it is compatible means these conventional additives such as retarders and accelerators can still be added to the Smith hydraulic cement containing this cationic polymer. Smith further teaches in Table III that the cationic organic polymer he uses is a poly(diallyldimethylammonium chloride) which appears to be the same as listed by appellants in paragraph [0027] from the PG Publication original disclosure for the instant application or US 2005/0155763 A1 (Reddy et al. Published July 21, 2005).

The appellants' claims have been given their broadest possible meaning and interpretation and it is improper for them to read the limitation of the specification or other dependent claims into their independent claims such as claims 1, 123, and 159. The examiner thus interpreted that *water* can be construed as the *activator* for these claims since water activates the hydraulic activity of hydraulic cement starting it on the course to an exothermic reaction and ultimately leading to a hardened mass upon setting.

The examiner notes that Smith does not teach appellants' activator as what they define it is as set forth, for example, in their own claim 16. Appellants state their activator is a mixture of trialkanolamine and an alkali or alkaline earth metal hydroxide. Yet, applicants cannot properly read the limitation of claim 16 for what they mean as activator into the independent claims. The examiner made rejections under 35 USC 102(b) only for claims wherein the activator can be water. He did not reject under 35 USC 102(b) any claims including claim 16 that specified the appellants' activator. The problem with appellants' instant claims is the fact that they did not insert and specify their activator in their independent claims. This resulted in the necessity of the

examiner's rejections under 35 USC 102(b). Had they simply inserted the activator as a mixture of trialkanolamine and an alkali or alkaline metal earth metal hydroxide, there would be no basis for a rejection under 35 USC 102(b) over Smith. Nevertheless, since Smith teaches a method of cementing by mixing a hydraulic cement such as Portland cement, retarder, water (which is also an activator), and cationic polymer, Smith at least anticipates each of applicants' independent claims. The examiner will address which claims are also anticipated based upon the Smith teaching:

Claim 2 is anticipated because Smith generally teaches water and water must be either fresh water or salt water or a mixture of the two.

Claim 3 is anticipated by Smith because a slurry containing sufficient water can be pumped.

Claim 4 is anticipated because it appears Smith teaches an amount of water meeting applicants' range of 25% to 150% by weight of water in Table V (cols 21-22).

Claim 5 is anticipated because Smith teaches Portland cement, silicate cement, and aluminate cement in col.5, lines 43-45.

Claim 6 is anticipated since one of ordinary skill in the art would have understood that upon adding water (activator) the cement sets into a densified mass.

Claim 7 is anticipated by Smith's adding silica sand, perlite, fly ash, clay such as bentonite because applicants do not define in this claim what they mean by high density particles. These are all particles that are solid and have density and thus meet the limitations of this claim (see col.5, lines 50-60 of Smith). Further, while it is true that the claims may be read in light of the specification, it is improper to read the limitations of

the specification into the claims. In re Yamato, 222 USPQ 93; In re Wilson, 149 USPQ 523; Graver Tank v. Linde Air Products Co. 80 USPQ 451 (Supreme Court).

For claim 8, Table V in cols.21-22 teaches that Smith can reduce the amount of water and thus Smith anticipates claim 8.

For claim 9, it is not anticipated by Smith because he does not teach a yield stress reducing agent. Appellents teach in [0029] of their PG Publication of this application that examples of yield stress reducing agents are sulfonated melamine formaldehyde condensate and sulfonated naphthalene condensate.

Claim 10 is not anticipated since Smith does not appear to teach specific retarders that can be used in his invention such as phosphonic acid or its derivatives. Claim 10 is not anticipated thus by Smith.

Claim 11 is also not anticipated because for the same reasons in claim 10.

Claim 12 is anticipated because Smith teaches that retarders can be added to his cement slurry composition comprising cationic polymer (col.4, lines 17-19). The appellants' claimed range of 0.1% to 5% is within the amount of retarder conventionally and routinely added to hydraulic cement compositions.

Claim 13 was canceled.

Claim 14 is anticipated because it simply reads upon water.

Claim 15 is anticipated since Smith does not limit his amount of added water. Further, note that the *activator* can not only be water but it can also be an accelerator which is a conventional additive to cement and this range of amounts is what is within what is conventionally added for cement. The appellants also admit on page 7, middle

paragraph of their appeal brief that an activator is an accelerator when a retarder is present. Thus it is the same. Smith even teaches adding accelerator (or activator) since he also adds retarders in column 4, lines 17-27.

Claim 16 is not anticipated because Smith does not teach an activator composition comprising a mixture of trialkanolamine and an alkali/alkaline earth hydroxide.

Claims 17-24 are not anticipated because they depend upon claim 16 which is also not anticipated.

Claim 25 is anticipated by Smith since he teaches at least 0.1 wt% cationic polymer (see claim 1 in col.22 of Smith).

Claim 26 is anticipated by Smith since the addition and presence of the cationic polymer (also known as the particle size adjusting agent) results in the narrower particle size distribution for the cement.

Claim 27 is anticipated for the same reason as stated in claim 25 (see again claim 1 in col.22 of Smith).

Claim 28 is anticipated since Smith adds the same catonic polymer as claimed by applicants and the resulting properties including rheology would follow in the same manner because the additives are the same.

Claim 29 was canceled.

Claim 30 is anticipated because Smith teaches a polydiallyldimethylammonium chloride cationic polymer (See Table III in cols.17-18).

Claim 31 is anticipated because Smith teaches his composition is compatible with fluid loss additives (col.4, line 18), adding fly ash, bentonite (col.5, lines 50-60).

Claim 32 is anticipated since a retarder allows for the cement to not solidify and set into a hardened mass and Smith teaches adding a retarder (col.4, line 18).

Claims 33 and 34 are anticipated for same reason as claim 32.

Claim 35 is anticipated because Smith teaches the same components in his cement as applicants and would have been expected to have same properties including suspension properties being uniform.

Claim 36 is anticipated because Smith teaches the same composition and the rheological properties would have been expected to stay the same if kept in slurry state.

Claim 37 is not anticipated by Smith because he does not teach appellants' yield stress reducing agent.

Claim 38 would not appear anticipated because Smith does not teach appellants' cement composition density range of 4 to 25 lbs/gallon.

Claim 123 is anticipated for the same reasons as claim 1. Smith teaches well cementing processing operations.

Claim 124 is anticipated because Smith teaches water.

Claim 125 is anticipated because Smith's aqueous slurry is pumpable (see claim 1 in col.22.

Claim 126 is anticipated for same reason as claim 4.

Claim 127 is anticipated for same reasons as claim 5.

Claim 128 is anticipated for same reason as claim 6.

Claim 129 is anticipated for same reason as claim 7.

Claim 130 is not anticipated because Smith does not teach a yield stress reducing agent.

Claim 131 is not anticipated for same reason as claim 130.

Claim 132 is not anticipated because Smith does not teach phosphonic acid retarders or their derivatives specifically.

Claim 133 is not anticipated for same reason as claim 132.

Claim 134 is anticipated for same reason as claim 12.

Claim 135 is canceled.

Claim 136 is anticipated for same reason as claim 14.

Claim 137 is anticipated for same reason as claim 15.

Claim 138 is not anticipated because Smith does not teach an activator composition comprising a mixture of trialkanolamine and an alkali/alkaline earth hydroxide.

Claim 139 is not anticipated because Smith does not teach the claimed specific trialkanolamines.

Claim 140 is not anticipated because Smith does not teach alkali/alkaline earth hydroxides.

Claim 141 is not anticipated because Smith does not teach trialkanolamine.

Claim 142-143 is not anticipated for same reason as claim 140.

Claim 144 is anticipated because water can be the activator and Smith teaches adding water to his cement + cationic polymer composition for well cementing.

Claim 145 is anticipated because unused cement is essentially in storage. It has to be put or placed somewhere before used and that place is "storage".

Claim 146 is anticipated because Smith teaches well cementing which is of course subterranean.

Claim 147 is anticipated because Smith does teach a cationic polymer which is even the same as applicants and would have the same properties including particle size distribution adjustment.

Claim 148 is anticipated because since Smith adds the same cationic polymer the properties of Smith or applicants adding the same cationic polymer should be the same including a narrower particle size distribution.

Claim 149 is anticipated by Smith since he teaches at least 0.1 wt% cationic polymer (see claim 1 in col.22 of Smith). The cationic polymer *is* the particle size distribution adjusting agent.

Claim 150 is anticipated since any other properties affected by adding the same cationic polymer would also have been expected to be the same including stable rheology.

Claim 151 is anticipated because Smith teaches a polydiallyldimethylammonium chloride cationic polymer (See Table III in cols.17-18).

Claim 152 is anticipated because Smith teaches his composition is compatible with fluid loss additives (col.4, line 18), adding fly ash, bentonite (col.5, lines 50-60).

Claims 153 and 154 are anticipated since a retarder allows for the cement to not solidify and set into a hardened mass and Smith teaches adding a retarder (col.4, line 18).

Claims 155 and 156 are anticipated because Smith teaches adding the same components and it would have been expected to have same properties of appellants' cement composition including uniform suspension properties.

Claim 157 would appear not anticipated since Smith does not teach appellants cement composition density of from about 4 lbs/gal. to about 25 lbs/gal.

Claim 158 is not anticipated. Smith does not teach phosphonic acid retarders nor does he teach the specific activator of trialkanolamine and hydroxide.

Claim 159 is anticipated because Smith teaches a method of cementing mixing Portland cement (hydraulic), retarder, water (activator), and cationic polymer. Water reads upon the activator since appellants do not claim the identity of the activator in this claim. It is improper to read the limitations of the specification or dependent claims into the independent claim.

Claim 160 is anticipated because Smith teaches water.

Claim 161 is anticipated because Smith's aqueous slurry is pumpable (see claim 1 in col.22.).

Claim 162 is anticipated because it appears Smith teaches an amount of water meeting applicants' range of 25% to 150% by weight of water in Table V (cols.21-22).

Claim 163 is anticipated because Smith teaches Portland cement, silicate cement, and aluminate cement in col.5, lines 43-45.

Claim 164 is anticipated since one of ordinary skill in the art would have understood that upon adding water (activator) the cement sets into a densified mass.

Claim 165 is anticipated because Smith adds silica sand, perlite, fly ash, clay such as bentonite. Appellants do not define in this claim what they mean by high density particles. These are all particles that are solid and have density and thus meet the limitations of this claim (see col.5, lines 50-60 of Smith). Further, while it is true that the claims may be read in light of the specification, it is improper to read the limitations of the specification into the claims. In re Yamato, 222 USPQ 93; In re Wilson, 149 USPQ 523; Graver Tank v. Linde Air Products Co. 80 USPQ 451 (Supreme Court).

Claims 166-167 are not anticipated because Smith does not teach a yield stress reducing agent.

Claims 168-169 are not anticipated by Smith because he does not teach specifically that the retarder that can be used is a phosphonic acid/derivative.

Claim 170 is anticipated because the appellants' claimed range of 0.1% to 5% is within the amount of retarder conventionally and routinely added to hydraulic cement compositions.

Claim 171 is canceled.

Claim 172 is anticipated because the activator can be water and it allows for the hydraulic activity of cement to commence to achieve effective compressive strengths.

Claim 173 is anticipated because Smith does not limit the amount of water he can add as an activator to his hydraulic cement composition.

Claim 174 is not anticipated because Smith does not teach their activator is trialkanolamine and alkali/alkaline earth metal hydroxide.

Claim 175 is not anticipated because Smith does not teach trialkanolamine.

Claim 176 is not anticipated because Smith does not teach these hydroxides.

Claim 177 is not anticipated for same reason as claim 175.

Claim 178 is not anticipated for same reason as claim 176.

Claim 179 is not anticipated for same reason as claim 176.

Claim 180 is anticipated because Smith teaches adding water activator.

Claim 181 is anticipated because unused cement is essentially in storage. It has to be put or placed somewhere before used and that place is "storage".

Claim 182 is anticipated because Smith does teach well cementing.

Claim 183 is anticipated because Smith teaches adding a cationic polymer in the same amounts as applicants and properties such as forestalled gelation should be the same.

Claim 184 is anticipated again because Smith teaches adding a cationic polymer particle size adjusting agent in same amounts which would lead to same properties including narrower particle size distribution.

Claim 185 is anticipated because Smith teaches at least 0.1 wt% cationic polymer (see claim 1 in col.22 of Smith).

Claim 186 is anticipated because any other properties affected by adding the same cationic polymer would also have been expected to be the same including stable rheology.

Claim 187 is anticipated because Smith teaches a polydiallyldimethylammonium chloride cationic polymer (See Table III in cols.17-18).

Claim 188 is anticipated because Smith Smith teaches his composition is compatible with fluid loss additives (col.4, line 18), adding fly ash, bentonite (col.5, lines 50-60).

Claim 189 is anticipated because Smith teaches adding the same components and it would have been expected to have same properties of appellants' cement composition including uniform suspension properties.

Claim 190 is anticipated because Smith teaches adding the same components and it would have been expected to have same properties of appellants' cement composition including rheological properties.

Claim 191 is not anticipated because Smith does not specifically teach appellants' density range for their cement composition of about 4-25 lbs/gal.

35 USC 103:

Claims 1-12,14-28, 30-39, 123-134, 136-170, and 172-191 are rejected under 35 USC 103(a) as obvious over Smith et al. '939 or Booth '407 alone or in view of Vijn et al. '488 or Yamashita et al. '418, Laramay et al. '318, Scheetz et al. (abstract), or McCurrich (US Patent No. 4,131,480).

Smith teaches a method of cementing a wellbore as explained above regarding the 35 USC 102(b) rejection.

Booth '407 (hereafter Booth) teach a method of filling/cementing a subterranean cavity (inclusive of a wellbore which is a subterranean cavity) by using a water (activator) slurry, a water soluble cationic polymer that helps adjust particle size distribution (see col.1, lines 46-52 and col.3, lines 55-65 teaching cationic polymers) such as polyacrylamide (col.4, lines 52-53) thus anticipating applicants' claims. Booth does not teach adding a set retarder to his cement slurry comprising a cationic polymer for subterranean applications. However, the

use of a retarder is conventional and notoriously used in cement compositions to slow or delay the setting of cement. **Vijn, et al. '488**, for example, teaches in col.4, lines 24-35 that adding a retarder is conventional for this reasons including to well cements.

The primary references of Smith and Booth both teach adding a cationic polymer to cement. The prior art cationic polymer is the same as applicants' cationic polymer and thus would also function as their particle size distribution adjusting agent. The appellants *particle size distribution adjusting agent* is essentially new words for defining what is already old in the art. Namely, this PSDA agent is actually a flocculent or flocculating agent which causes particles in suspension to floc together or agglomerate (see page 7, line 8 of applicants' specification). The activator or activating agent reads upon either water (which activates the hydraulic activity of cement) or an accelerator which accelerates and activates the rapid setting of cement. Note that in claim 1 appellants do not specify or define any specific activators and though they may mean accelerator by the use of the term activator, water is the only ingredient which imparts the hydraulic activity to cement and starts the hydraulic reaction for hardening and setting of the cement.

The use of a retarder is *conventional* and well known in cement compositions to retard or delay the setting of cement. **Vijn et al. '488** teaches in column 4, lines 24-35 that the addition of a retarder to cements for applications such as well cements is known and conventional in the art. Vijn also teach adding dispersing agents, defoamers, silica flour, formation conditioning additives, expansion aids, set accelerators (activators),

weighting agents, lightening agents such as fly ash or fumed silica (see col.4 lines 10-16 and col.5, lines 1-20).

Yamashita et al. '418 teach *conventional* additives to cement compositions include retarders such as ***phosphonic acids and their derivatives*** (col.17, line 25), high early strength agents (ie accelerators or as applicants name them activators) such as ***KOH*** or ***NaOH*** (col.17, lines 35-40 which are ***alkali metal hydoxides***) as well as ***alkanolamines***, surfactants (same as surface active agents-see col.18, line s 35-55), thickeners (same as viscosifiers-see col.19, line 3), silica fume, fly ash, etc. Yamashita et al. further teach these additives may be added in plural (col.19, line 9).

Laramay et al. '318 teach adding *conventional* additives to cement compositions such as fluid loss additives, viscosifiers, retarders, accelerators (ie activators), dispersants, weight adjusting agents, fillers, (see col.10, lines 25-30), surfactants (col.11, line 14), fly ash, silica flour etc. (col.11, lines 20-23). It would have been an obvious design choice for one of ordinary skill in the art to add conventional cement additives of Laramay et al. '318, Vijn et la. '488, and Yamashita et al. '418 to cement compositions such as those of the primary references because these are routinely used in the art.

Scheetz and **McCurrich '480 et al.** teach the addition of ***sulfonated naphthalene condensate*** is old in the cement art as an additive because it is a conventionally used superplasticizer (dispersant) for improving the pumpability of the cement slurry (see abstract). The appellants call this component a "yield stress reducing

agent" but it is better known in the art as a superplasticizer (or dispersant) which are conventional additives to improve cement pumpability.

The examiner notes that the secondary references were used in the 35 USC 103 rejection to show that additives such as retarders and dispersants (yield stress reducing agent as labeled by appellants) are conventional additives to cement. The purpose for adding a retarder is to delay the setting of cement and thus by adding a retarder the cement would remain in a slurry state and this would have been understood by one of ordinary skill in the art. Adding an activator or accelerator would lead to the setting of the cement and the cement would no longer be in a slurry state but moving towards a hardened and setting material.

(10) Response to Argument

The appellants argue on page 6 of their response with respect to the 35 USC 102(b) rejection over Smith that he does not teach adding an activator composition. The examiner disagrees. Water can meet the definition of an activator for all independent claims. Appellants do not define their activator as being trialkanolamine and hydroxide *in their independent claim* and it is improper for them to read the limitations of their specification or other dependent claims *into* their independent claims. While it is true that the claims may be read in light of the specification, it is improper to read the limitations of the specification into the claims. In re Yamato, 222 USPQ 93; In re Wilson, 149 USPQ 523; Graver Tank v. Linde Air Products Co. 80 USPQ 451 (Supreme Court).

Appellants argue that the examiner errs in his finding that activator can be an accelerator. First, as stated above, water still can fall under the definition of an activator. Second, the appellants appear to admit that accelerator and activator are one in the same when a cement composition also comprises a retarder. Both primary references can both comprise an accelerator and a retarder at the same time so thus the accelerator would be an activator as well. The accelerators within the teaching of the prior art thus, like water, also meet the definition of an activator. Again, appellants could have most easily resolved this by simply defining their activator in all independent claims as a combination of trialkanolamine and alkali/alkaline earth hydroxide. They never made this amendment. Appellants must understand that water and/or accelerators of the prior art still read upon *activator* in these independent claims.

The appellants also argue that water will not activate because water is already in the cement composition. In rebuttal, appellants do not distinguish or say that their activator must be different than water. Thus, they can be the same. Further, accelerators are conventional additives as well and still meet the activator component even if water does not.

Regarding Booth and Smith, their activator composition is H_2O or water. Their activator composition can also simply be an accelerator for Booth or Smith, a known conventional additive to increase the setting of cement of which appellants admit is the same as an accelerator when a retarder is present.

The appellants argue that that the examiner has not disclosed the step from Booth or Smith of "permitting the cement composition to remain in a slurry state for a

period of time prior to the cement composition being activated" (claim 1). In rebuttal, the appellants do not define a period of time in claim 1 so that can be one millionth of a second (which is a period of time) and thus the activator (or accelerator if it contains a retarder as appellants define it) will still be thus in a slurry state. Regarding appellants' claims 123 and 159 wherein the appellants argue the slurry is in a slurry state of 24 hrs or 2 weeks respectively before being activated, one of ordinary skill in the art would have the capability of delaying set time indefinitely using conventional retarders. One of ordinary skill in the art can continually add retarder to keep a cement in a slurry state. The whole point of a retarder is to stop or delay the setting of the cement. Note also that the moment water is added to cement, it hydraulically activates the setting of cement. An accelerator increases the time of set so it essentially is a conventional ingredient activator as well.

The appellants on claim 10 of their brief again argue as if they actually have trialkanolamine and akali/alkaline earth hydroxide mixture in their independent claims. They do not and it is improper to read the limitations of the specification into the claims. This limitation actually must be in the independent claims for appellants' argument to hold. It is not.

The appellant than states that the examiner has yet to provide evidence that *water does activate a cement composition*. The appellants argue they have provided evidence that water does not activate a composition (namely cement). It appears appellants again read their specification definition of activator when the independent claim still do not define activator with language such as --wherein in the activator is a

mixture of accelerator and retarder---. Appellants cannot properly read this limitation into their independent claims. Note that water still is an activator because it activates the hydraulic activity of cement. Again, it is improper to read the limitations of the specification or dependent claims into the independent claims. The examiner's prior art is the evidence he needs to teach that water activates a cement composition. Water activates a cement composition by starting the hydraulic process of the exothermic reaction (heat) leading to a solid, hardened, set mass. All prior art references teach adding water to a hydraulic cement and it is understood that water activates the hydraulic activity of the cement. Without water to activate cement powder, the cement powder on its own would be useless. There would be a lot less buildings, walkways, roads, houses, walls, bridges, skyscrapers, tunnels, wellbores, etc. worldwide without water as an *activator* to cement.

The appellents next imply that the prior art does not teach adding both nor in the same order as it appears appellants do for their process. It is conventional to use one or both (retarder or accelerator) for a single process of cementing depending upon the need. Some applications require both and some might require only a retarder or accelerator alone. The appellants order of adding retarder (delay set of cement) followed by activator (if accelerator) is what is conventionally done in the art.

The appellants argue that Vijn do not teach their retarder is used to maintain a slurry state or non-setting of cement for the time periods of 24 hrs or 2 weeks for example as claimed. The examiner notes that one of ordinary skill in the art can tailor

the selection of his retarders or continue adding retarder to prevent setting of his concrete slurry for as long as necessary depending upon the application.

The appellants also argue Yamashita individually instead of addressing the combination rejection wherein Yamashita simply teaches that conventional additives are known, old, and conventional in the art and one of ordinary skill in the art would have the understanding and capability of slowing or delaying setting time or accelerating accelerating time using an accelerator or retarder to cement mixes.

The appellants argue Laramay teaches an accelerator and because he does not teach a retarder it cannot be construed as an activator. The examiner notes again that Laramay has only been added to the combination rejection to show that retarders and accelerators are conventional additives and can both be present at the same time as is conventionally known in the art. One of ordinary skill in the art would have understood at time of appellants' invention that they could have used a retarder or accelerator alone or together in a cement mix.

The appellants point out that Scheetz or McCurrich do not teach an activator but only teach adding sulfonated naphthalene. Appellants are arguing these references individually and not addressing the rejection as a combination rejection. In response to appellant's argument that Scheetz or McCurrich do not teach an activator, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the

test is what the *combined* teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Scheetz and McCurrich '480 et al. teach the addition of sulfonated naphthalene condensate is old in the cement art as an additive because it is a conventionally used superplasticizer (dispersant) for improving the pumpability of the cement slurry (see abstract). The applicants call this component a *yield stress reducing agent* in their claims and specification but it is better known in the art as a superplasticizer (or dispersant) which are conventional additives to improve cement pumpability.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Paul Marcantoni/
Primary Examiner, Art Unit 1793

Conferees:

/Chris Fiorilla/
TC1700 Quality Assurance Specialist

/Jerry Lorengo/
SPE AU 1793